Reading Data from Mailbox

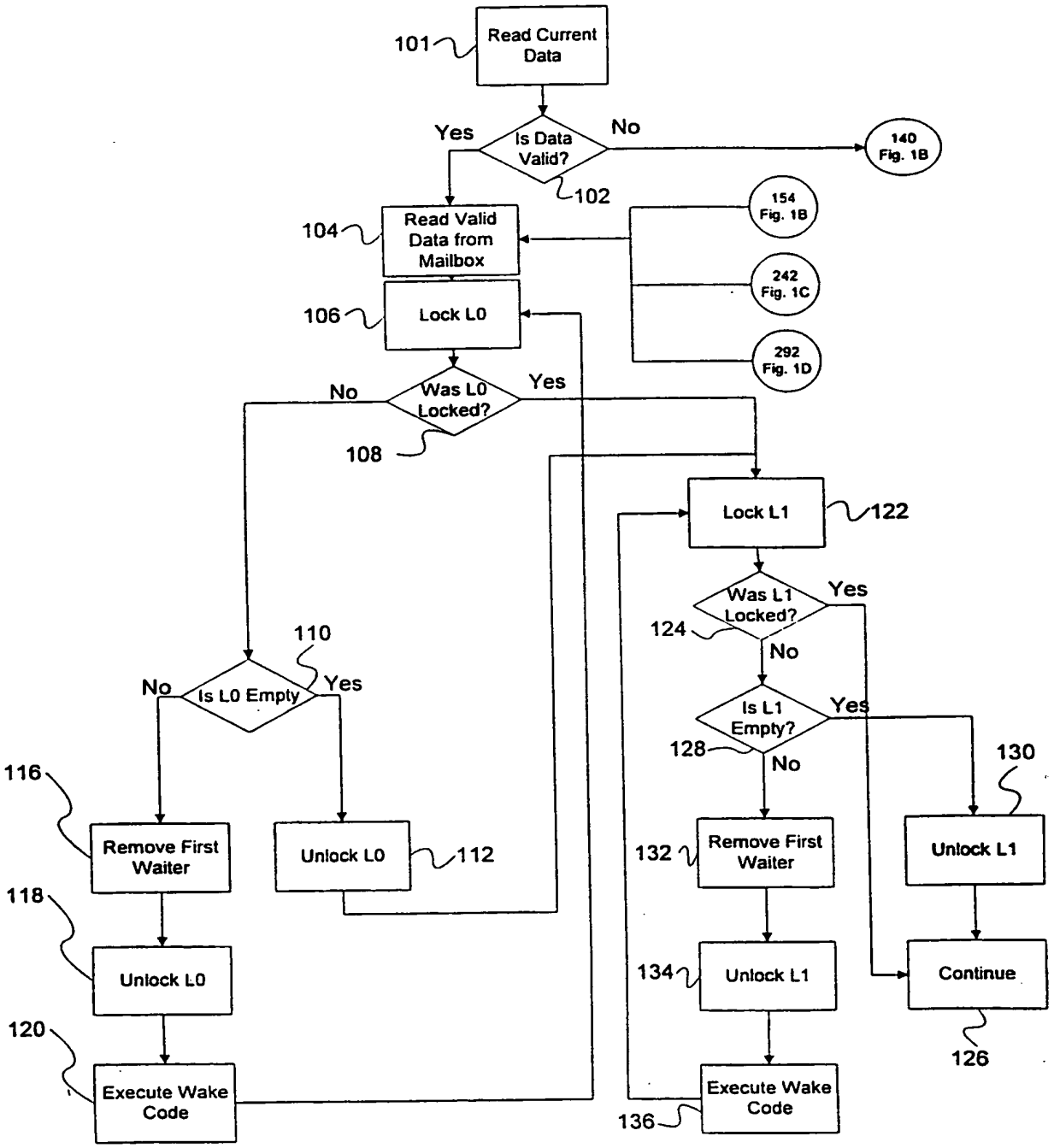

Fig. 1A

Reading Data from Mailbox

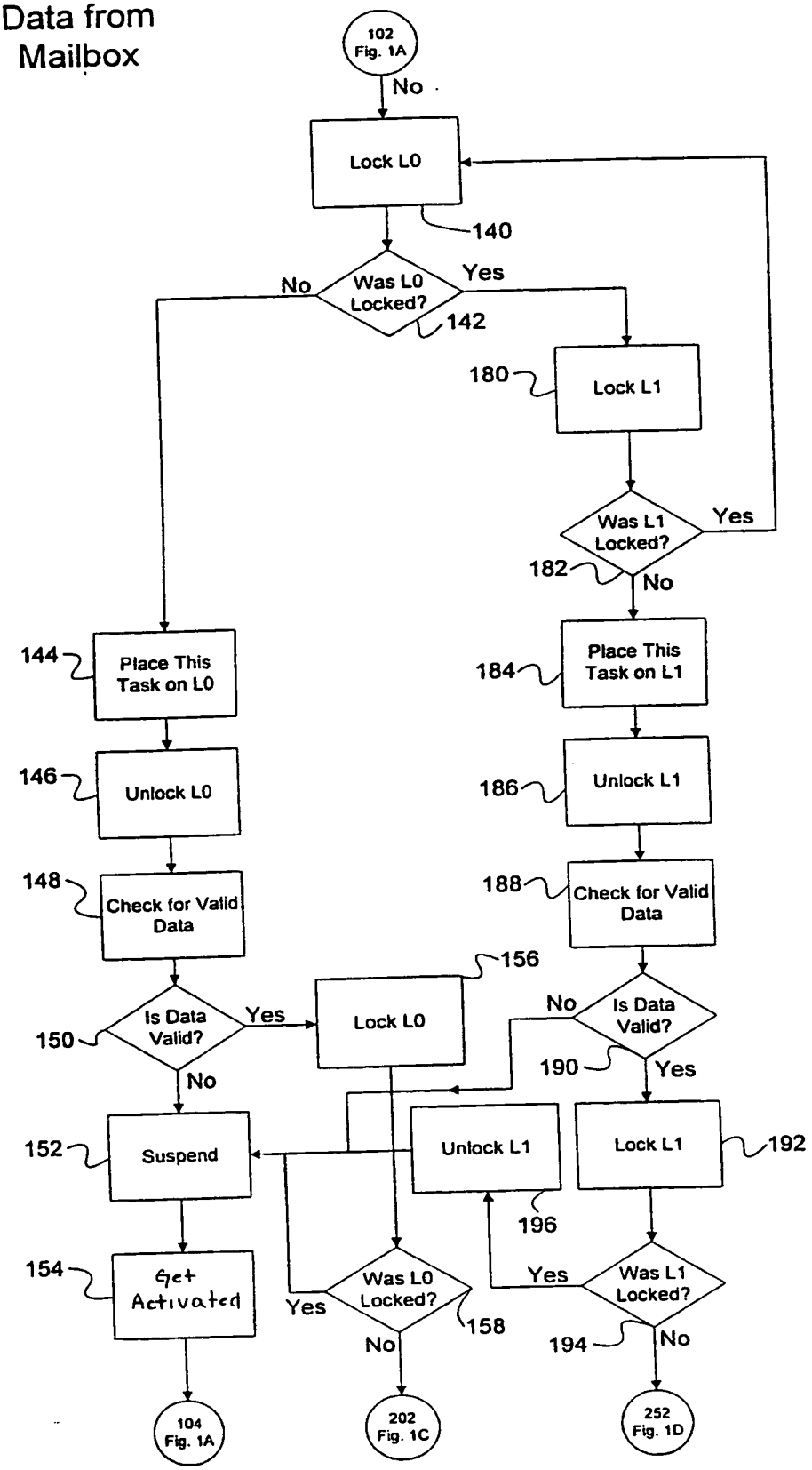

Fig. 1B

Reading Data from Mailbox

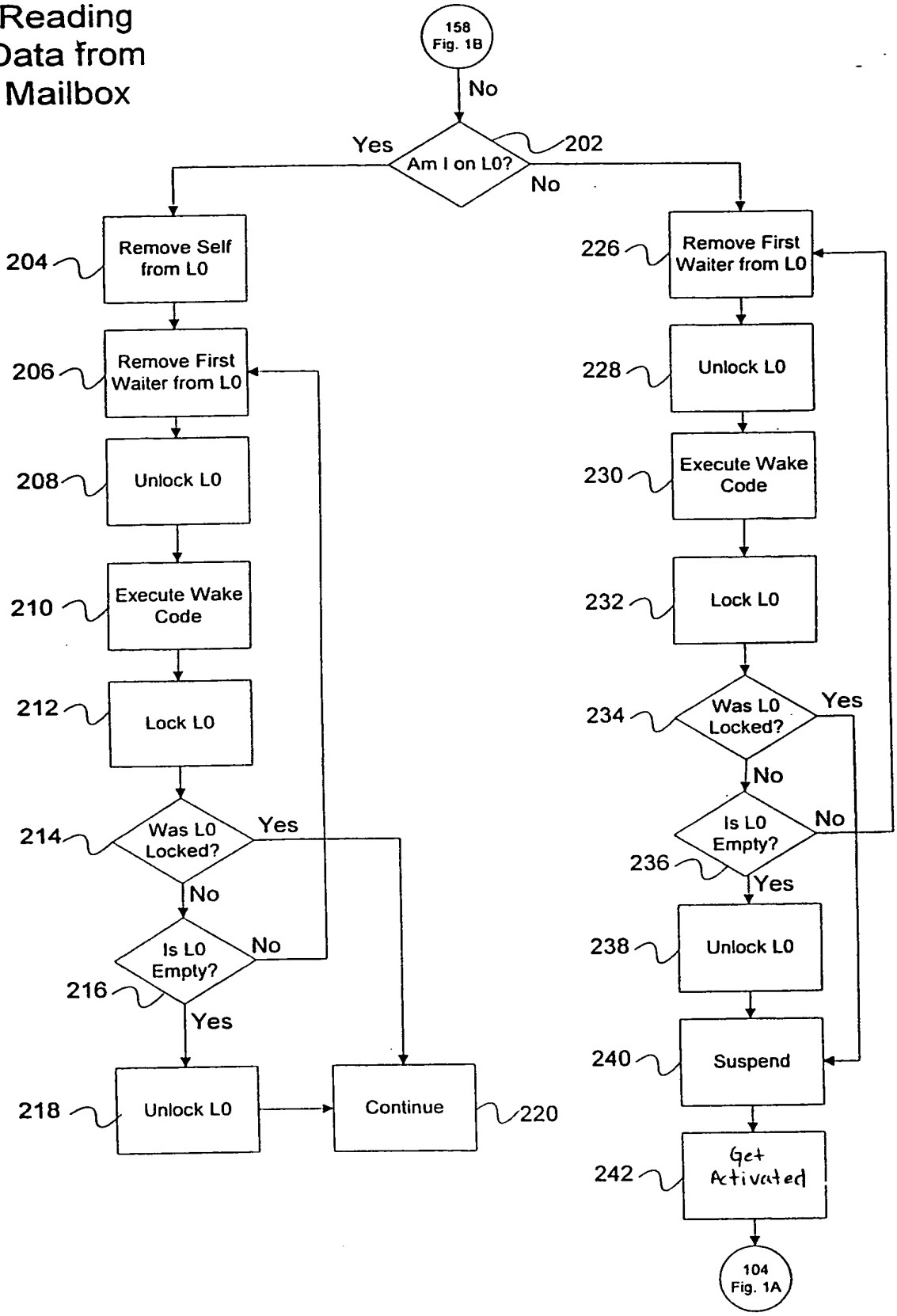

Fig. 1C

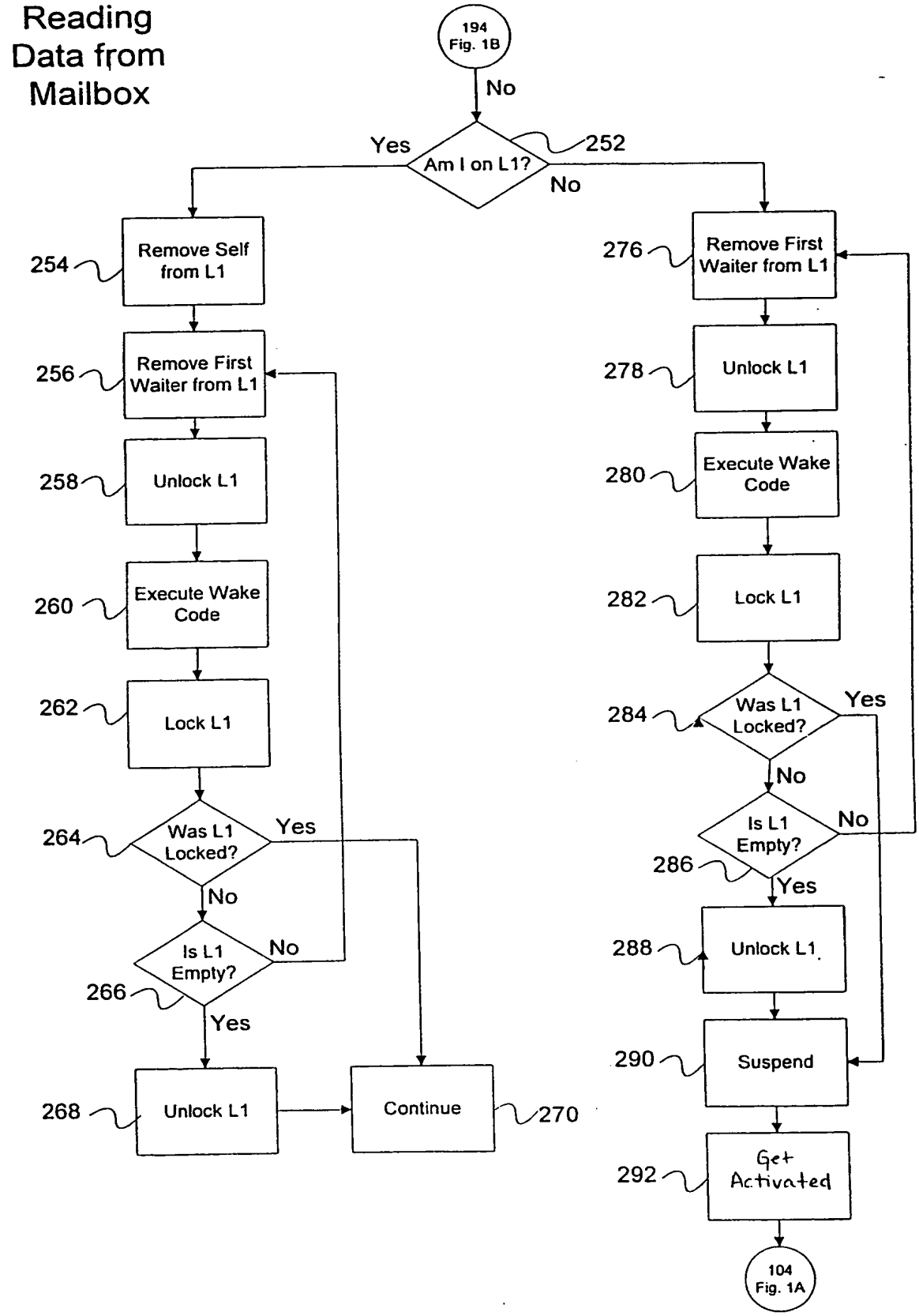
Reading Data from Mailbox
194 Fig. 1B
No
Yes
Am I on L1?
252
No
254
Remove Self from L1
256
Remove First Waiter from L1
258
Unlock L1
260
Execute Wake Code
262
Lock L1
264
Was L1 Locked?
Yes
No
Is L1 Empty?
No
266
Yes
268
Unlock L1
Continue
270
276
Remove First Waiter from L1
278
Unlock L1
280
Execute Wake Code
282
Lock L1
284
Was L1 Locked?
Yes
No
Is L1 Empty?
No
286
Yes
288
Unlock L1
290
Suspend
292
Get Activated
104 Fig. 1A

Fig. 1D

Placing Data in Mailbox

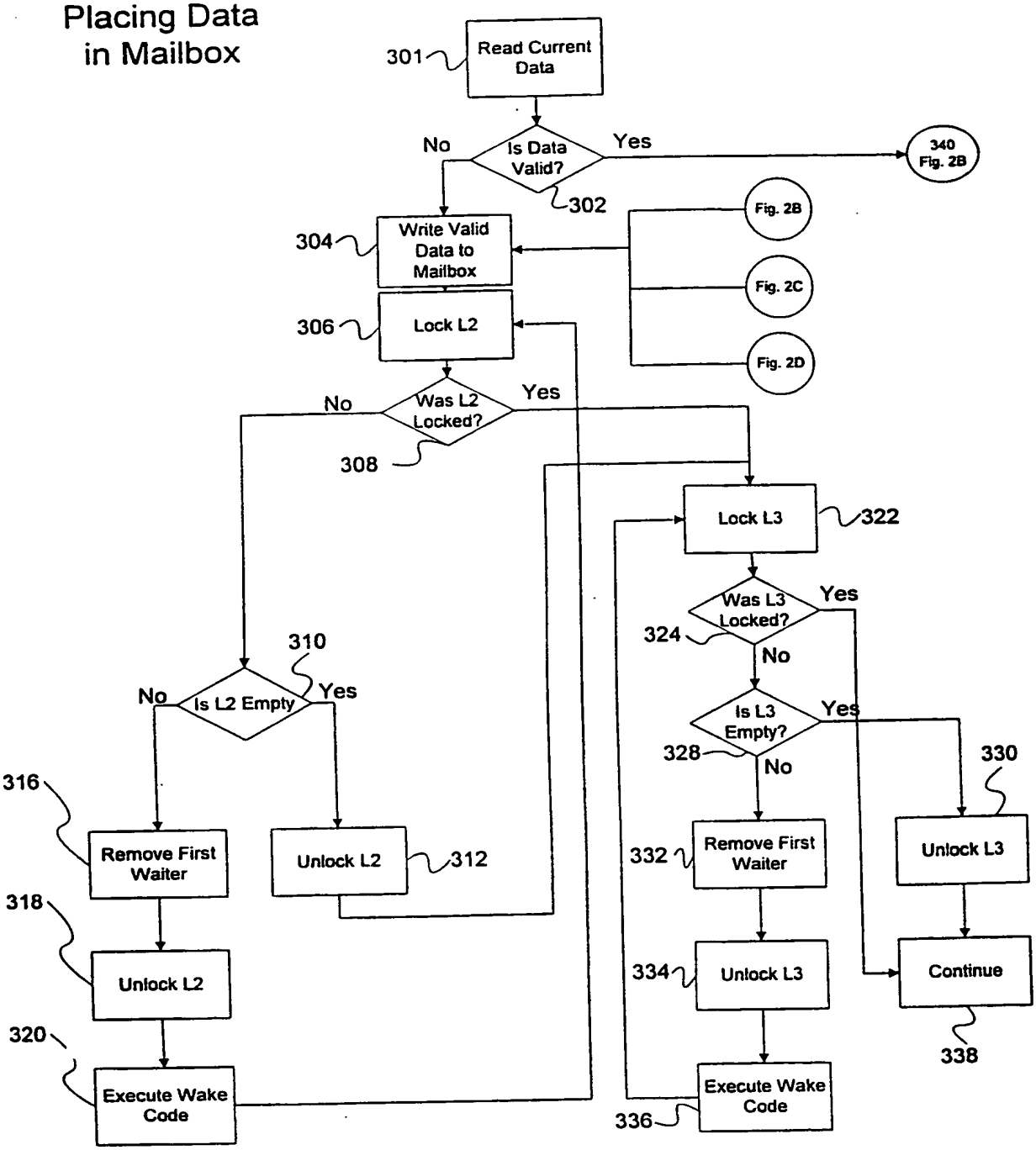

Fig. 2A

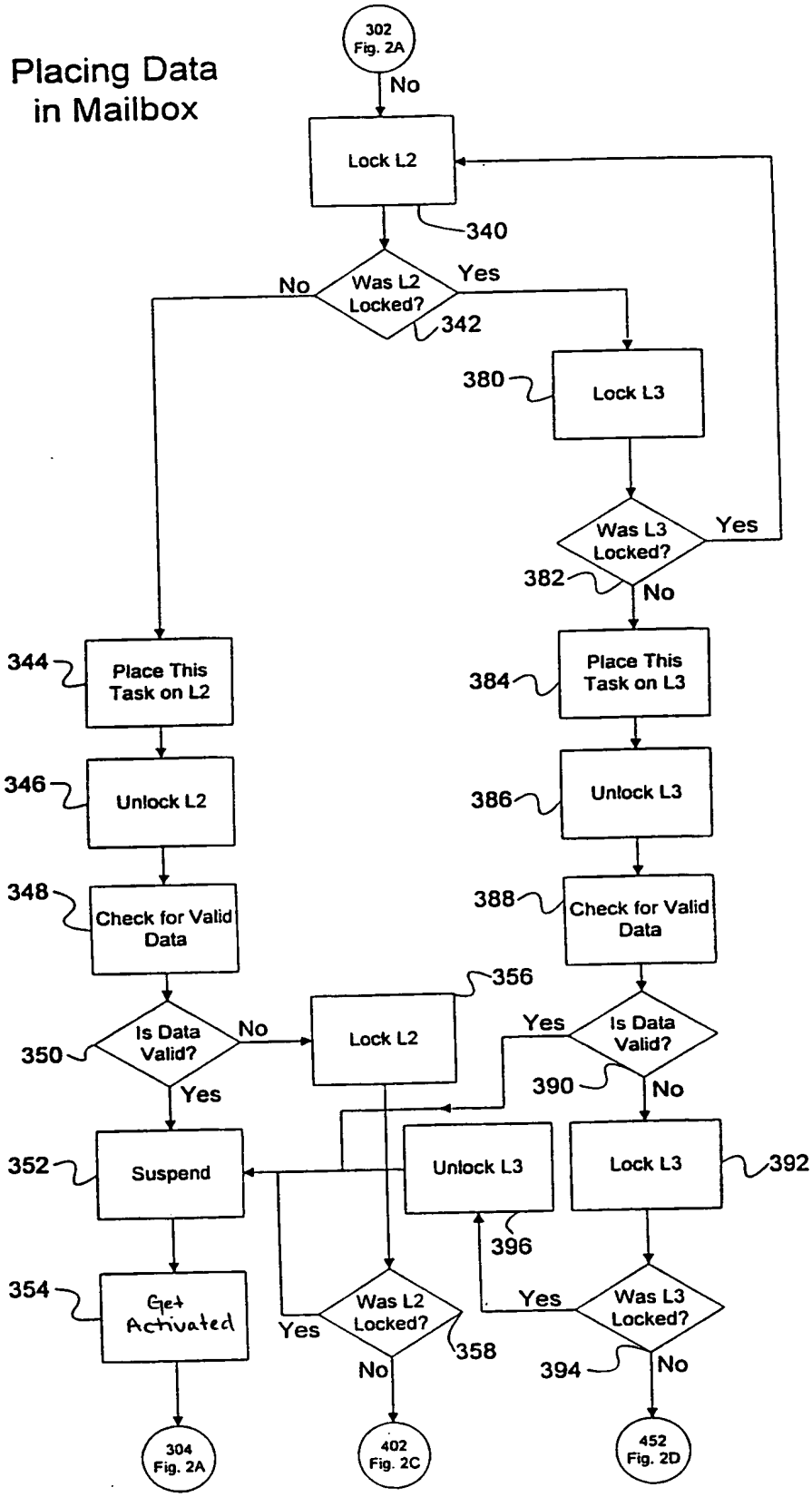
Placing Data in Mailbox
302 Fig. 2A
No
Lock L2
340
Was L2 Locked?
No
Yes
342
380
Lock L3
Was L3 Locked?
Yes
382
No
344
Place This Task on L2
384
Place This Task on L3
346
Unlock L2
386
Unlock L3
348
Check for Valid Data
388
Check for Valid Data
356
Is Data Valid?
350
No
Lock L2
Yes
Is Data Valid?
390
No
Yes
352
Suspend
Unlock L3
Lock L3
392
396
354
Get Activated
Was L2 Locked?
Yes
358
No
Yes
Was L3 Locked?
394
No
304 Fig. 2A
402 Fig. 2C
452 Fig. 2D

Fig. 2B

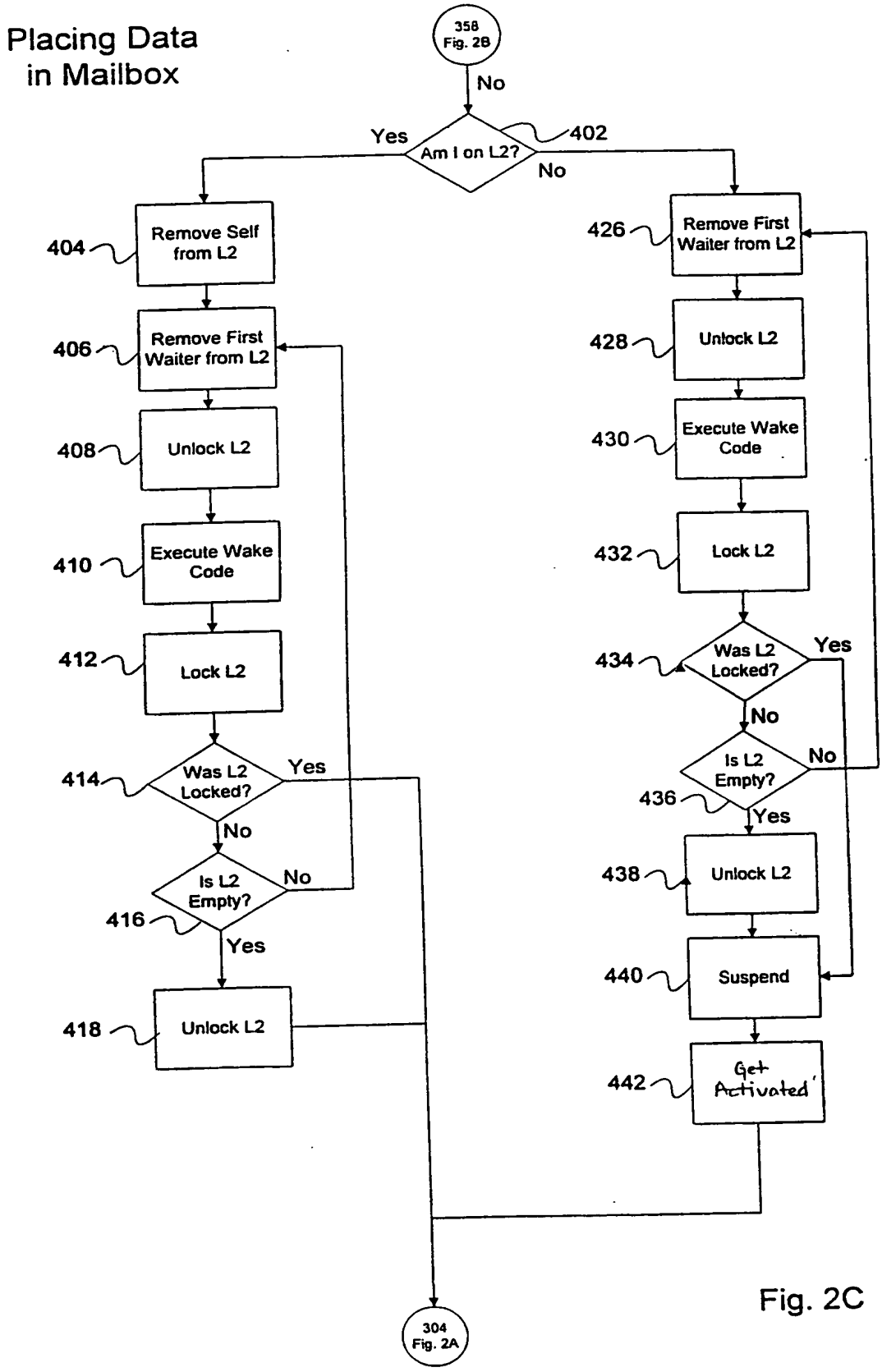
Placing Data in Mailbox
358 Fig. 2B
No
Yes
Am I on L2?
402
No
404
Remove Self from L2
406
Remove First Waiter from L2
408
Unlock L2
410
Execute Wake Code
412
Lock L2
414
Was L2 Locked?
Yes
No
Is L2 Empty?
No
416
Yes
418
Unlock L2
426
Remove First Waiter from L2
428
Unlock L2
430
Execute Wake Code
432
Lock L2
434
Was L2 Locked?
Yes
No
Is L2 Empty?
No
436
Yes
438
Unlock L2
440
Suspend
442
Get Activated
304 Fig. 2A

Fig. 2C

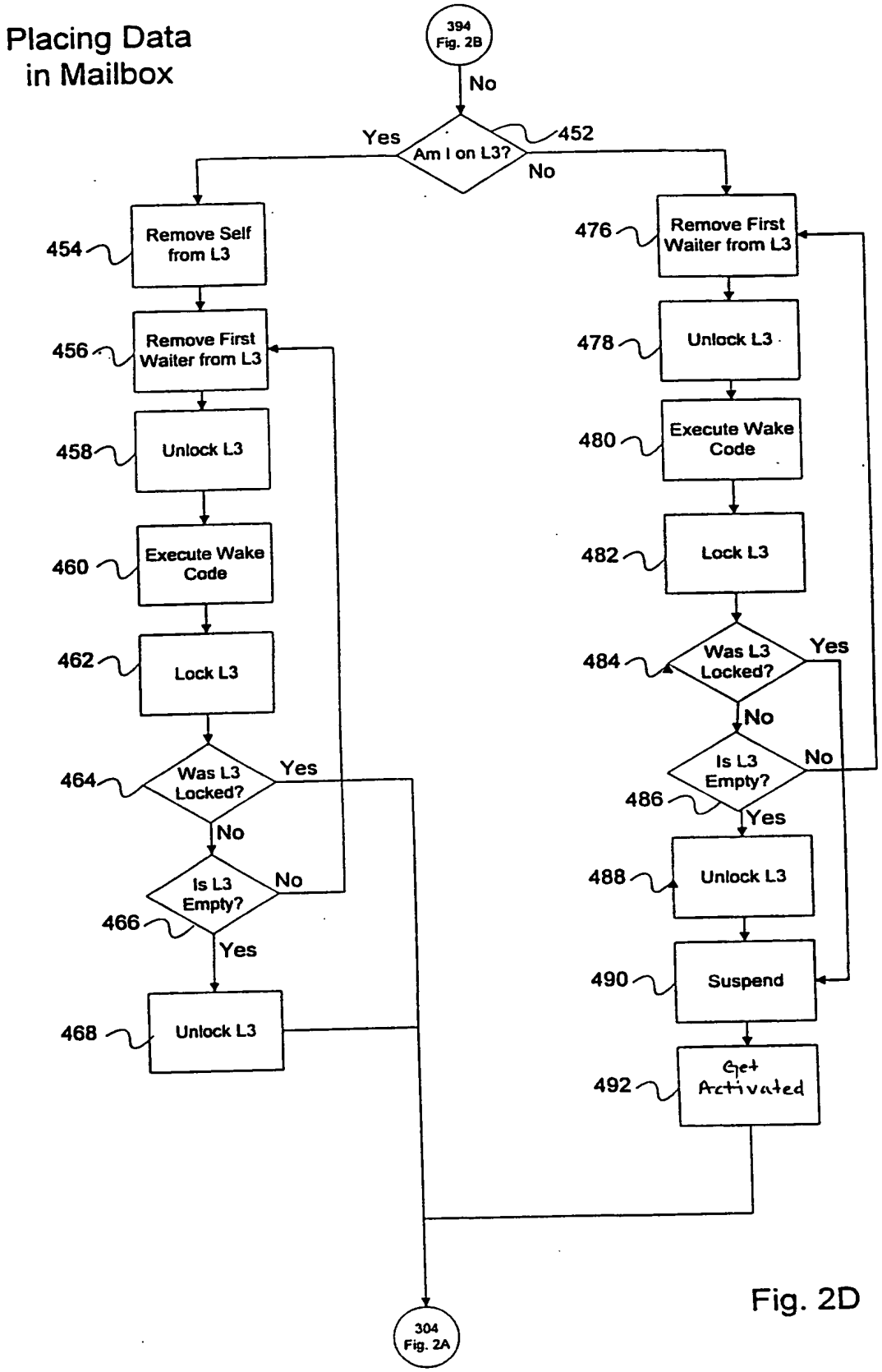
Placing Data in Mailbox
394 Fig. 2B
No
Yes
452
Am I on L3?
No
454
Remove Self from L3
456
Remove First Waiter from L3
458
Unlock L3
460
Execute Wake Code
462
Lock L3
464
Was L3 Locked?
Yes
No
Is L3 Empty?
No
466
Yes
468
Unlock L3
476
Remove First Waiter from L3
478
Unlock L3
480
Execute Wake Code
482
Lock L3
484
Was L3 Locked?
Yes
No
Is L3 Empty?
No
486
Yes
488
Unlock L3
490
Suspend
492
Get Activated
304 Fig. 2A

Fig. 2D

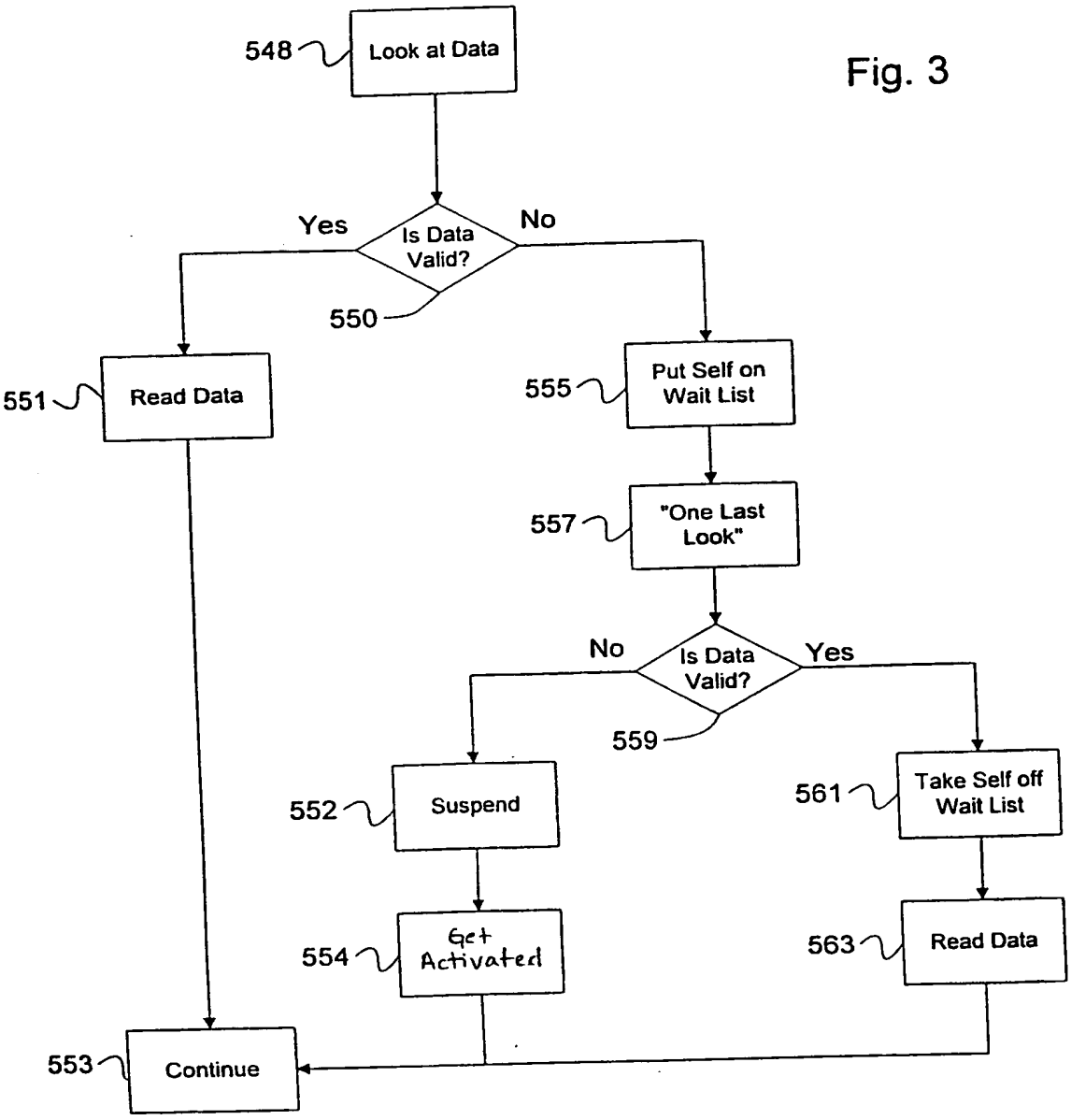
548
Look at Data
Yes
Is Data Valid?
No
550
551
Read Data
555
Put Self on Wait List
557
"One Last Look"
No
Is Data Valid?
Yes
559
552
Suspend
561
Take Self off Wait List
554
Get Activated
563
Read Data
553
Continue

Fig. 3